CONTENTS OF VOLUME 8

NUMBER 1

Important Notice:	iii
Articles	
Y. SANO, A. URABE, H. WAKITA and H. WUSHIKI: Origin of hydrogen-nitrogen gas seeps, Oman	1
D. R. Turner and J. R. Bowman: Origin and evolution of skarn fluids, Empire zinc skarns, Central Mining District, New Mexico, U.S.A.	9
B. SAINI-EIDUKAT, D. MAROZAS, R. BLAKE and N. ADAMSON: Implications of rock mineralogy and texture on the feasibility of <i>in situ</i> leach mining of Mn-bearing iron formations of central Minnesota, U.S.A	37
A. Davis and J. N. Galloway: Distribution of Pb between sediments and pore water in Woods Lake, Adirondack State Park, New York, U.S.A	51
C. L. LIND and J. D. HEM: Manganese minerals and associated fine particulates in the streambed of Pinal Creek, Arizona, U.S.A.: a mining-related acid drainage problem	67
T. P. WILSON and D. T. LONG: Geochemistry and isotope chemistry of Michigan Basin brines: Devonian formations	81
A. Hall: Application of the indophenol blue method to the determination of ammonium in silicate rocks and minerals.	101
Book Review	
A. A. LEVINSON: Regional Geochemistry of the East Grampians Area	107
Erratum:	109
Erratum:	111
Papers to appear in forthcoming issues:	113
IAGC application form:	I
NUMBER 2	
Articles D. L. NAFTZ, R. B. SEE and P. RAMIREZ: Selenium source identification and biogeochemical processes controlling selenium in surface water and biota, Kendrick Reclamation Project, Wyoming, U.S.A	115
P. Benoit, J. G. Hering and W. Stumm: Comparative study of the adsorption of organic ligands on aluminum oxide by titration calorimetry	127
B. Marty, V. Meynier, E. Nicolini, E. Griesshaber and J. P. Toutain: Geochemistry of gas emanations: a case study of the Réunion Hot Spot, Indian Ocean	141
R. CABOI, R. CIDU, L. FANFANI, P. ZUDDAS and A. R. ZANZARI: Geochemistry of the high-PCO ₂ waters in Logudoro, Sardinia, Italy	153

J. Griffioen and C. A. J. Appelo: Nature and extent of carbonate precipitation during aquifer thermal energy storage	161
A. VELDKAMP and S. B. KROONENBERG: Application of bulk sand geochemistry in mineral exploration and Quaternary research: a methodological study of the Allier and Dore terrace sands, Limagne rift valley, France	177
J. W. Hess and W. B. White: Groundwater geochemistry of the carbonate karst aquifer, southcentral Kentucky, U.S.A	189
Papers to appear in forthcoming issues:	205
IAGC application form:	I
NUMBER 4	
NUMBER 3	
Articles W. C. Evans, G. W. Kling, M. L. Tuttle, G. Tanyileke and L. D. White: Gas buildup in Lake Nyos, Cameroon: the recharge process and its consequences	207
M. GASCOYNE, D. M. WUSCHKE and E. M. DURRANCE: Fracture detection and groundwater flow characterization using He and Rn in soil gases, Manitoba, Canada	223
N. E. WHITEHEAD, D. SEWARD and J. VESELSKY: Mobility of trace elements and leaching rates of rhyolitic glass shards from some New Zealand tephra deposits	235
P. Sundararaman and L. D. Raedeke: Vanadyl porphyrins in exploration: maturity indicators for source rocks and oils	245
G. N. Dowuona, A. R. Mermut and H. R. Krouse: Stable isotope geochemistry of sulfate in relation to hydrogeology in southern Saskatchewan, Canada	255
S. Terashima, H. Katayama and S. Itoh: Geochemical behavior of Pt and Pd in coastal marine sediments, southeastern margin of the Japan Sea	265
H. SVERDRUP and P. WARFVINGE: Calculating field weathering rates using a mechanistic geochemical model PROFILE	273
M. BEN BACCAR and B. FRITZ: Geochemical modelling of sandstone diagenesis and its consequences on the evolution of porosity	285
Critical Comments P. D. LUNDEGARD and L. S. LAND: Carboxylic acid anions in formation waters, San Joaquin Basin and Louisiana Gulf Coast, U.S.A.—Implications for clastic diagenesis. Discussion	297
D. B. MacGowan and R. C. Surdam: Carboxylic acid anions in formation waters, San Joaquin Basin and Louisiana Gulf Coast, U.S.A.—Implications for clastic diagenesis. Reply to Discussion by P. D. Lundegard and L. S. Land	301
J. S. HANOR, L. S. LAND and G. L. MACPHERSON: Carboxylic acid anions in formation waters, San Joaquin Basin and Louisiana Gulf Coast, U.S.A.—Implications for clastic diagenesis. Critical	305

and Louisiana Gulf Coast, U.S.A.—Implications for clastic diagenesis. Reply to Critical Comment by J. S. Hanor, L. S. Land and G. L. Macpherson	309
Uy J. S. MANUK, L. S. LAND and G. L. WACPHERSUN	309
Papers to appear in forthcoming issues	313
Announcements	315
IAGC application form	I
NUMBER 4	
Articles	
Y. K. KHARAKA, P. D. LUNDEGARD, G. AMBATS, W. C. EVANS and J. L. BISCHOFF: Generation of aliphatic acid anions and carbon dioxide by hydrous pyrolysis of crude oils	317
T. BARTH and K. BJØRLYKKE: Organic acids from source rock maturation: generation potentials, transport mechanisms and relevance for mineral diagenesis	325
C. Braux, P. Piantone, H. Zeegers, M. Bonnemaison and JC. Prévot: Le Châtelet gold-bearing arsenopyrite deposit, Massif Central, France: mineralogy and geochemistry applied to prospecting	339
G. CHIODINI, R. CIONI and L. MARINI: Reactions governing the chemistry of crater fumaroles from Vulcano Island, Italy, and implications for volcanic surveillance	357
M. STEPHENSON, W. J. SCHWARTZ and M. MOTYCKA: Regional survey for He anomalies in Canadian Shield lakes: sources of variation and implications for nuclear fuel waste management	373
T. Forsans, JP. Zundel and A. Lichanot: Composition of acidification effluents of sandstones through geochemical calculation: validation of fluorosilicate equilibria by potentiometric assay of F	383
L. A. Martinelli, R. L. Victoria, J. L. I. Dematte, J. E. Richey and A. H. Devol: Chemical and mineralogical composition of Amazon River floodplain sediments, Brazil	39
R. S. KAUFMANN, S. K. FRAPE, R. McNutt and C. Eastoe: Chlorine stable isotope distribution of Michigan Basin formation waters	40
A. LEDIN, S. KARLSSON and B. ALLARD: Effects of pH, ionic strength and a fulvic acid on size distribution and surface charge of colloidal quartz and hematite	40
Papers to appear in forthcoming issues	41
Announcement	41
IAGC application form	
NUMBER 5	
Articles V. K. Lukashev: Some geochemical and environmental aspects of the Chernobyl nuclear accident	41
M. Branca and M. Voltaggio: Erosion rate in badlands of central Italy: estimation by radiocaesium isotope ratio from Chernobyl nuclear accident	43
J. M. THOMAS, A. H. WELCH, M. S. LICO, J. L. HUGHES and R. WHITNEY: Radionuclides in ground water of the Carson River Basin, western Nevada and eastern California, U.S.A	44

I. D. CLARK, P. FRITZ, H. K. SEIDLITZ, P. TRIMBORN, T. E. MILODOWSKI, J. M. PEARCE and H. N. KHOURY: Recarbonation of metamorphosed marls, Jordan	473
R. Aravena and L. I. Wassenaar: Dissolved organic carbon and methane in a regional confined aquifer, southern Ontario, Canada: Carbon isotope evidence for associated subsurface sources	483
A. COUDRAIN-RIBSTEIN and P. GOUZE: Quantitative study of geochemical processes in the Dogger aquifer, Paris Basin, France	495
T. P. WILSON and D. T. LONG: Geochemistry and isotope chemistry of Ca-Na-Cl brines in Silurian strata, Michigan Basin, U.S.A.	507
Book Review	
F. J. Longstaffe: Stable Isotope Geochemistry: A Tribute to Samuel Epstein	525
Papers to appear in forthcoming issues	527
IAGC application form	I
NUMBER 6	
Articles P. C. Bennett, D. E. Siegel, M. J. Baedecker and M. F. Hult: Crude oil in a shallow sand and gravel aquifer—I. Hydrogeology and inorganic geochemistry	529
R. P. EGANHOUSE, M. J. BAEDECKER, I. M. COZZARELLI, G. R. AIKEN, K. A. THORN and T. F. DORSEY: Crude oil in a shallow sand and gravel aquifer—II. Organic geochemistry	551
M. J. BAEDECKER, I. M. COZZARELLI, R. P. EGANHOUSE, D. I. SIEGEL and P. C. BENNETT: Crude oil in a shallow sand and gravel aquifer—III. Biogeochemical reactions and mass balance modeling in anoxic groundwater	569
S. D. Machemer, J. S. Reynolds, L. S. Laudon and T. R. Wildeman: Balance of S in a constructed wetland built to treat acid mine drainage, Idaho Springs, Colorado, U.S.A	587
P. VILKS, J. J. CRAMER, D. B. BACHINSKI, D. C. DOERN and H. G. MILLER: Studies of colloids and suspended particles, Cigar Lake uranium deposit, Saskatchewan, Canada	605
JP. GIRARD, R. FLICOTEAUX, AV. WALTER, S. M. SAVIN and D. NAHON: Oxygen and carbon isotope composition of structural carbonate in weathering apatites from laterites, southern Brazil and western Senegal.	617
G. D. ROBINSON: Major-element chemistry and micromorphology of Mn-oxide coatings on stream alluvium	633
F. M. PHILLIPS: Comment on "Reinterpretation of ³⁶ Cl data: physical processes, hydraulic inter- connections and age estimates in groundwater systems" by E. MAZOR	643
E. MAZOR: Chlorine-36 data and basic concepts of hydrology—comment on F. M. PHILLIPS' comment, with special reference to the Great Artesian Basin	649
J. R. KELLETT, W. R. EVANS, G. L. ALLAN and L. K. FIFIELD: Reinterpretation of ³⁶ Cl data: physical	653

E. MAZOR: Some basic principles of ³⁶ Cl hydrology: a reply to the discussion by Kellett, Evans, Allan and Fifield	659
JC. Fontes and J. N. Andrews: Comment on "Reinterpretation of ³⁶ Cl data: physical processes, hydraulic interconnections and age estimates in groundwater systems" by E. MAZOR	663
E. MAZOR: The need for auxiliary data to address the long list of processes recruited to interpret ³⁶ Cl data in groundwater systems—a reply to the comment by JC. Fontes and J. N. Andrews	667
Papers to appear in forthcoming issues	671
IAGC application form	1
Indexes to Volume 8	III

